



IIIT-Bhubaneswar
Information Brochure-2022





Director's Message

Greetings recruiter,

Since our inception 15 years ago, we've gone a long way. Rather than simply providing placement, our main goal is to provide a path for career development. The T&P cell promotes the potential of students who are nurtured by building employability skills and are developed by a culture of engineering, research, and technology in the highly competitive academic environment.

Over the last 16 years, we've nurtured the industry association, and we'd like to maintain that relationship with our new recruiters. Students are trained through a personalized skill upgrade and technical training program, and as a result, they contribute to global core competencies by generating rich human capital. The institute would like to gratefully recognize the mutually fruitful partnership with our previous recruiters. Since its foundation, we have promoted the industry association. We want to maintain the same level of communication.

We'd like to encourage you to visit our campus and assess the skill of our students. We look forward to working with you in the campus recruitment class of 2022. As a potential employer, we are confident that your search for the ideal applicant has come to an end.

Best Regards,

Mr. Manoj Pattnayak

Director,
IIIT Bhubaneswar

Registrar's Message

Greetings recruiter,

Fifteen years ago, the then President of India Dr. A. P. J Abdul Kalam laid the foundation stone of the Institute. After taking baby steps, the Institutes has entered into its teens. In the first decade of its existence, the Institute had some enviable achievements. The construction of the campus, building academic infrastructure, recruiting a bunch of young and talented faculty are some of these achievements. The Institute aims to be a technology playground.

This implies fun in learning, developing of competitive spirit, developing a sense of independence and interdependence. The Institute's curriculum, education delivery methods, evaluation standards are being constantly fine-tuned to achieve the objective of being a technology playground. In the campus, you will encounter restless students aspiring for more energetic faculty driving the students hard and an environment which encourages learning celebrates achievements and cultivates humanity and good citizenship.

I invite you to visit our campus and engage with students who can be your future hires and faculty who can show what technology will be like in future.

Best Regards,

Dr. Debasish Jena

Registrar,
IIIT Bhubaneswar



About IIIT Bhubaneswar

IIIT Bhubaneswar is one of India's premier institutes for delivering a cutting-edge multidisciplinary research environment that fosters creativity and a developed world-class technology to achieve the goal of developed India.

IIIT Bhubaneswar is a unitary university with a focus on advanced research and education. The creation and transmission of knowledge are among the main activities, as are the production of high-quality engineers, scientists, and entrepreneurs who are well-versed in the latest technologies, and the development of innovative technology solutions for the benefit of society.

The Institute aspires to become a Center of Excellence for Information Technology technical education, producing competent workers with high levels of credibility, honesty, and ethical standards. Education is a lifelong process that must begin with a solid and wide foundation. The Institute's mission is to instill in pupils a passion for learning and a determination to succeed at all levels. The Institute also strives to provide students with the intellectual and practical skills they will need to face the difficulties that will inevitably arise in the future.

The Institute has a large campus on the outskirts of the city of Bhubaneswar. The atmosphere on campus is pleasant and intellectually interesting. The Institute aspires to be a one-of-a-kind institution of higher learning, providing cutting-edge education, research, and training in information technology with societal, environmental, and global implications.





Mission

The mission of IIIT is to be a knowledge seeking Institution of higher learning that will educate students in technology and other disciplines of scholarship. The Institute will work closely with the industry and other users of the technology to develop and deliver technological solutions to enhance their competitive position.

The Institute is committed to the entire value chain of knowledge creation, diffusion, and preservation to meet the challenges of the century. The Institute will borrow best practices in education delivery systems, research, and consulting practices. Leveraging technology to bring about next generation of practices will be a key to this strategy.

The Institute is dedicated to creating a community of students, faculty, and scholars with passion for learning, creativity, innovation in all aspects of academic pursuit.

Vision

Our vision is to be a unique institute imparting education, training, research, and consulting in technology and related fields to develop human resources who will lead the economy and the society in the coming decades.

Values

The Institute cultivates values of Honesty and transparency, Respect for the Individual, Commitment to quality & high standards, Passion for performance and Sensitivity to social & ethical issues.

The Campus

The city of Bhubaneswar is well-known for its diverse cultural history. Bhubaneswar is recognized as India's Temple City because of its numerous temples. Bhubaneswar is making a name for itself in the field of information technology. When it comes to technology, Bhubaneswar has produced some of India's best minds. The lush green 23-acre campus of IIIT Bhubaneswar is about a 30-minute drive from the city center.

The cutting-edge campus includes hi-tech classrooms, technical workshops, a conference hall, auditorium, seminar halls, computer lab, lab, and a well-stocked library, as well as well-furnished Girls and Boys Hostels.

Classrooms

To meet the diverse needs of various programs, more than 30 classrooms are available in various formats, such as galleried and flat-floored. With capacities ranging from 25 to 180 students, the classrooms are equipped with audio and video projectors, internet access, and network connections.

Hostel

There are two Hostels in the Institute. More than 1600 students are housed in these hostels. Single, double, and triple bedded rooms are available in the hostels. Rooms with modern design, washing machines, geysers, gym, common area with HD LCD TV, TT, carom, music system, and modern and hygienic mess are among the Hostels' amenities. The Institute contains Faculty quarters, which can accommodate 42 families, as it is a residential Institute.





Central Library

The Institute's Central Library is an important part of its academic infrastructure. With a big and diversified collection of books, it is a bookworm's dream come true. The library is distinguished by a huge collection of titles and journals, as well as e-books, multimedia content, and a Text Book library that is open 24 hours a day, seven days a week.

Auditorium

Guest lectures, interaction meetings, technical events, industry interactions, and seminars are all held in the Institute's four small auditoria. These auditoriums feature seating capacities of 150 to 300 people and are outfitted with cutting-edge audio and visual presentation technology. The Institute includes an open-air theatre that can accommodate large-scale events with crowds of up to 5000 people.

IT Infrastructure

On campus, the Institute features a cutting-edge IT infrastructure. The IT infrastructure is based on the concept of service. The IT infrastructure includes the following features: a campus network that reaches every corner of the university; Fast Internet connectivity; servers to support a variety of services; big software library of development tools, analytical software, simulation software, and other applications; PCs and notebooks for everyone, including faculty, students, and staff.

Laboratories

As a part of curriculum, the institute has established several research laboratories, including High Performance Computing Lab, IOS and OSX Lab with Apple Computers and Data Centre Lab. Central Government agencies like Department of IT and Department of Science and Technology funded CLIA lab and Bioinformatics Lab are also available in the campus. Additionally, the Institute has also developed Virtual Labs and Cloud based Labs for many IT oriented subjects.

Virtual Instrumentation Lab

This lab makes use of a few unique technologies, including Lab view and Xilinx mentor visuals. This lab's major goal is to model and simulate virtual real-time systems. Real-time speech processing and real-time image processing are also covered.



Bioinformatics Lab

The Government of India's Department of Science and Technology has established a bioinformatics facility. On the proposal of its advisory board, the DST designated the CS&E department for level 1 support. Under the FIST-DST 2013 GRANT, an amount of Rs. 50 lakhs have been set aside for this purpose. The lab focuses on creating huge biodata mining and systems bioinformatics technologies to identify hidden yet critical rules that underpin a variety of biomedical phenomena.

Image and Video Processing Lab

The Image and Video Processing (IVP) Lab focuses on the research and development of theories, algorithms, and applications of computer vision, deep learning, signal processing, image processing, and video processing in areas like healthcare, surveillance, etc.

Big Data Lab

Hadoop, HBase, Hive, Zookeeper, Flume, and Pig are among the open-source tools used in the big data lab. Most of the time, this lab is used for research, student projects, and consulting. It focuses on large-scale data streams such as news, blogs, sensor data, and social media for analysis. It's also employed in cyber security machine learning applications. The institute has set up labs for its students to learn about mobile development. This feature can be used to create apps for IOS, Windows, and Android.



Characterization Lab

The projected Characterization lab would be the country's first of its sort in the east. Once the laboratory is up and running, it will be able to provide facilities for chip testing. Even though chip design has progressed to a significant level in the state, there is no chip testing facility. Local IT entrepreneurs, students, and research scholars will benefit from the Characterization Laboratory, and such a facility will attract more IT investment to the state.

Cross-Lingual-Information-Access (CLIA) Lab

Sandhan (Indian Language Search Engine) is a mission-mode project supported by TDIL, the Ministry of Communication and Information Technology, and the Indian government.

This research lab aims to create a monolingual tourism search engine in nine Indian languages, including Odia. Numerous research institutes, including IITs, IIITs, are involved. The Sandhan technology fills a gap in serving Indians who do not speak English, allowing them to access content in their own languages.

Information Security and Forensic Lab

This lab aids in the development of information security capacity. Generation of core research workforce to conduct basic/fundamental/applied research in information security, introduction of information security to the curriculum of formal courses, Technology Forecasting & Assessment, and construction of a National Repository of courses are the key areas of attention. The Government of India's Department of Electronics and Information Technology is funding this lab.

High performance Computing Lab

One master node, 12 compute nodes, and a GPU node make up the Institute's HPC. There are 256 compute cores and a GPU processor in the HPC. The HPC is equipped with the following software: PGI toolkit with CUDA programming toolkit on Linux (for GPU node), support for PGI C++/ FORTRAN, Intel cluster studio, PBS pro software or equivalent, PGI toolkit with CUDA programming toolkit on Linux (for GPU node). Red Hat Linux is used to run the HPC. The system is mostly used for consultation and research. This system is used in M.Tech's parallel programming classes.

The Campus Life

For its pupils, the Institute provides an exceptional environment. The staff, instructors, and students all get along well. The great range of experience, background, and culture, along with common skill and high aspiration, creates an inspiring vibrancy that enhances learning both inside and outside the classroom.

To channelize their creative energy in the right direction, students have formed a variety of clubs and organizations. Workshops, seminars, and boot camps on emerging technology are held by IEEE and ACM student chapters. The Tech Society hosts coding competitions on popular and upcoming languages and frameworks, as well as peer sessions and industry-led tech presentations. Our students have also created an app called Canopy, which is an easy-to-use tool that includes a notice board, student attendance status, grades, MOOCS, and several other utilities.

The Cult Society's objective is to identify and nurture intrinsic talent among pupils. The Society has a number of clubs that are dedicated to promoting an individual's principles and interests. Art & Design Club, Film and Theatre Society, and Photo-geeks are the three clubs (the Photography club). VIBES, ACOUSTICA (singing competition), La Mode (fashion show), ROCKATHON (rock band competition), and Photography Competitions are some of the competitions and events organized by the Cultural Society. Our students used to attend Bhubaneswar's Raahgiri (Pathamahotsav) activities on a regular basis.





The Sports Society encourages students to participate in sports by organizing training camps and contests in cricket, basketball, football, lawn tennis, and volleyball. The Institute's teams compete in inter-college contests on a regular basis and have won numerous tournaments. Indoor events such as carrom board, chess, and table tennis competitions are also organized by the Society.

The News and Publications Society provides students with the opportunity to improve their writing and public speaking skills. The NAPS hosts Ingenium, an annual inter-university literature festival that attracts students from various universities and colleges across the country. The Society also hosts debating sessions and theme-based Quizzing events.

The E-mission cell's is to promote students' entrepreneurial spirit, educate them about the major problems they will face in any entrepreneurial situation, and assist them in adapting to the complexities of the competitive world. To assist prospective entrepreneurs, the Cell hosts workshops, speaker sessions, inventive activities, and discussions. The National Entrepreneurship Network includes the Cell (NEN). This organization holds B plan competitions to assist budding entrepreneurs in becoming successful start-ups.



Academics

The curriculum aims to help students grow in the following ways:

- Develop a scientific mindset: The curriculum aims to teach students how to question, observe, test, hypothesis, analyze, and communicate in a scientific mindset. Healthy skepticism, universalism, freedom from prejudice or bias, objectivity, open mindedness, and humility, willingness to suspend judgement without sufficient evidence, reason, perseverance, and a positive attitude toward failure are all promoted in the pupils.
- Encourage the study of engineering and technology. Mindset: The curriculum aims to teach pupils how to analyze and synthesize information. These abilities are required for problem solving, as well as designing products and solutions that are simple, usable, timely, and cost-effective.
- Understanding the application environment: The curriculum assists students in appreciating the setting in which their abilities will be used. Organizational, cultural, economic, and political situations teach students about protocols, problems, and merits.
- Develop high levels of Integrity, positive Self Awareness, commitment, learning to engage in positive discussion, asking questions, being intent listeners, being truthful, and being eloquent are all skills that the curriculum and campus life help students develop.
- Develop multiple intelligence: The curriculum and campus life assist students in developing various intelligence talents such as literary, musical, , interpersonal, and intrapersonal intelligence.
- While students are guided toward greater objectives like as a corporate career or becoming an entrepreneur, they are also taught to be attentive to society and the environment.
- The Institute has implemented pedagogical advances. Many courses use flipped classrooms, in which lectures are presented online and students interact in questioning, presenting, and problem solving in the classroom. Many courses use project-based learning, which encourages students to design a project or a solution to a real-world problem.





- Common Courses, Compulsory Disciplinary Courses, Elective Courses, and Internships are all part of the Curriculum.
- Students are introduced to a wide range of common courses in the first year, which lay the groundwork for the more branch-intensive courses to come.
- Practice school or an internship in their last semester is an important element of academics. The program lasts five and a half months and includes the most intensive exposure to an industrial setting.
- Students can also choose the Thesis Program (a dissertation for a higher degree) instead of the Practice School. The thesis program is an important aspect of our academic framework since it allows students to experience the difficulties of working in a research environment.
- The Bachelor of Technology Course Curriculum is made up of three types of courses such as Foundation courses, Departmental courses, and Elective courses.
- Foundation courses are common to all disciplines and are designed to build and strengthen a student's scientific, mathematical and programming fundamentals. The Foundation courses are open to students from all fields and are designed to develop a student's scientific and mathematical foundation. The Foundation Courses comprise courses from a wide range of engineering fields to provide a broad picture of engineering.
- The fundamental subjects of all disciplines are covered in the departmental course. The departmental courses include the core subjects in all the disciplines. Electives allow students to broaden their horizons and explore their interests in new ways. They also include the courses from a broad range of engineering disciplines to provide an extended view of the engineering discipline. Our faculties are always working to make the progr
- am more industry-oriented by incorporating industry-relevant tools and practices. One of our long-term aims has always been to incorporate industry-relevant technologies and procedures. Our faculties are continually working to improve the curriculum and delivery techniques in order to provide a better learning experience.



Bachelor of Technology in Computer Science and Engineering

The Bachelor of Technology in Computer Science Engineering, also known as Computer Science Engineering, is unquestionably one of the most in-demand engineering specialties. The Computer Science Engineering program focuses on the design, development, and administration of software and hardware-based information systems. A computer scientist is an expert in computing theory and computational system design. It's a four-year bachelor's degree program that focuses on computer programming languages and computer system technologies. The course is meant to provide candidates with the necessary abilities in computer application, research, and development, as well as computer programming.

Computer Architecture, Networking, Algorithms, Databases, Distributed Computing, and Computational Intelligence are among the topics covered in the course. One of the course's main goals is to train people who can support research and development efforts in vital sectors such as automated, secure, monitoring and surveillance systems, medical diagnostics, intelligent monitoring systems, and so on.

Laboratory Courses

Chemistry Laboratory
Workshop Practice
C Programming Laboratory
Business Communicative English Lab
Basic Electronics Laboratory
Physics Laboratory
Engineering Drawing
Data Structure using "C" Laboratory
Basic Electrical Laboratory
Analogue Electronics Lab
Object Oriented Programming Lab using C++
Critical Reading
Digital Electronics Circuit Lab
Design and Analysis of Algorithm Lab
Computer Organization Lab
Relational Database Management System Lab
Java Programming Lab Compiler Design Lab
Microprocessor & Microcontroller Lab
Operating System Lab
Data Communication and Computer Network Lab
Software Engineering Lab



Theory Courses

The Mathematics-I
Chemistry
Basic Electronics Engineering
Basic Thermal Engineering
Programming in C
Oral Business Communications
Mathematics-II
Physics
Basic Electrical Technology
Engineering Mechanics
Data Structure using C
Written Business Communications
Mathematics III
Network Theory
Physics of Semiconductor devices
Object Oriented Programming using C++
Analogue Electronics Circuit
Engineering Economics & Costing
Discrete Mathematics
System Programming
Theory of Computation
Design and Analysis of Algorithm
Digital Electronics Circuit
Organizational Behavior
Computer Organization
Java Programming
Compiler Design
Relational Database Management System
Environmental Engineering
Microprocessor & Microcontrollers
Operating System
Data Communication and Computer Network
Optimization in Engineering
Computer Graphics
Principles and Practices in Software Engineering

Bachelor of Technology in Computer Engineering

The Bachelor of Technology in Computer Engineering is an undergraduate engineering curriculum that focuses on design, computing, and programming languages in order to create hardware and software applications. Computer engineering is mostly concerned with the creation of software for computers. Computer engineering is a branch of electrical engineering and computer science that combines numerous domains to create computer systems. Instead of just software engineering or electronic engineering, computer engineers typically have expertise in electronic engineering, software design, and hardware-software integration. From the design of individual microprocessors, personal computers, and supercomputers to circuit design, computer engineers are involved in many hardware and software elements of computing.

Laboratory Courses

Physics Laboratory
Environmental engineering and safety Laboratory
Introduction to Programming I Laboratory
Basic Electrical Technology Laboratory
Introduction to Electronics Laboratory
D.S. and Algorithms Laboratory
Workshop Practice
Digital Electronics Circuit Lab
Introduction to Programming-II Lab COA Lab
RDBMS Lab
Design and Analysis of Algorithm Lab
DCCN lab
Microcontroller & IoT Lab

Theory Courses

Physics
Environmental engineering and safety
Basic Electrical Technology
Introduction to Electronics
Basic of Mechanical Engineering
Introduction to Programming I
Communication Skill-I (Oral Business Communications)
Mathematics-II
Data Structure and Algorithms
Communication Skill-II (Written Business Communications)
Probability & Statistics
Introduction to Programming-II
Digital Electronics Circuit
Basics of Management for Engineers
Communication Skill-III (Critical Reading)
Discrete Structure
Computer Organization and architecture
Relational Database Management System
Design and Analysis of Algorithm/ Advanced Algorithms
Communication Skill –IV (Culture and Communication)
Theory of Computation
Data Communication and Computer Networks
Operating System
IWT-1
Compiler Design Optimization Engineering
Data Mining Microcontroller & IoT
Image and Video processing
Advanced Computer Architecture
Software Engineering
Cryptography and Information Security
Artificial Intelligence



Bachelor of Technology in Electronics and Telecommunication Engineering

IIIT Bhubaneswar's Electronics and Telecommunication Engineering department is dedicated to developing competent engineers capable of solving real-world challenges in the field of electronics and communications. The department has always been on a fast track to success, with seasoned and devoted faculty members who are passionate about engineering education. Basic Electronics, Communication Systems, Computer Networks, Control Systems, Digital Signal Processing, Image Processing, Computer Vision, Instrumentation, Signal Processing, RF & Microwaves, and VLSI Systems are among the key areas of faculty specialization.

Laboratory Courses

Chemistry Laboratory
Workshop Practice
C Programming Laboratory
Business Communicative English Lab
Basic Electronics Laboratory
Analogue Communication Lab
Digital Electronics Circuit Lab
Object Oriented Programming Using C++ Lab
Critical Reading
Physics Laboratory
Engineering Drawing
D.S. using "C" Laboratory
Basic Electrical Laboratory
Network & Devices Lab
Analogue Electronics Circuit Lab
Introductory Simulation Lab for MATLAB & LABVIEW
Control & Instrumentation Lab
Microprocessors Lab
Digital Communication Lab
VLSI Design Lab
Digital Signal Processing Lab
Microwave Engineering Lab
Image Processing Lab
Communication System Lab



Theory Courses

Mathematics-I
Chemistry
Basic Electronics Engineering
Basic Thermal Engineering
Programming in C
Oral Business Communications
Mathematics-II
Physics
Basic Electrical Technology
Engineering Mechanics
Data Structure using C
Written Business Communications
Mathematics III
Materials Science & Engineering
Network Theory
Electrical & Electronics Measurement
Organizational Behavior
Analogue Electronics Circuit
Electromagnetic Fields & Waves
Object Oriented Programming Using C++
Analogue Communication Techniques
Digital Electronics Circuit
Engineering Economics and Costing
Physics of Semiconductor Devices
Control Systems Engineering 3
Digital Communication Techniques
Microprocessor and Microcontroller
Environmental Engineering & Safety
VLSI Design
Digital Signal Processing
Optimization in Engineering
Microwave Engineering
Fundamentals of Image Processing
Mobile Communication

Bachelor of Technology in Electrical and Electronics Engineering

The Bachelor of Technology in Electrical and Electronics Engineering is an undergraduate degree that teaches fundamental concepts in control systems, radio frequency, design signal processing, microelectronics, microprocessors, power production, and electrical machines.

Application-based programming in Python, Digital System, Design, Microprocessor and Microcontroller with Interfacings, and Network Analysis & Synthesis are all part of the program's curriculum. Students in this degree also learn to design new technologies that can be used to improve electronics and communication systems. Aside from that, the program teaches students how to use the most up-to-date computer interfacing technologies in the instruments laboratory. This program trains students to design and test electronic circuits with a balanced combination of theory and practice.

Laboratory Courses

Chemistry Laboratory
Workshop Practice
C Programming Laboratory
Business Communicative English Lab
Basic Electronics Laboratory
Physics Laboratory
Engineering Drawing
D.S. using C Laboratory
Basic Electrical Laboratory
Network & Devices Lab
Analogue Electronics Circuit Lab
Object Oriented Programming Using C++ Lab
Electrical Machines Lab-I
Digital Electronics Circuit Lab
Electrical & Electronics Measurement Lab
Critical Reading Control & Instrumentation Lab
Electrical Machines Lab-II
Power Electronics Lab
Digital Signal Processing Lab
Microprocessor & Microcontrollers Lab
Design and Simulation Lab
Power System Lab
Communication Engineering Lab



Theory Courses

Mathematics-I
Chemistry
Power System Protection
Power System Operation and Control Communication-Engineering
Basic Electronics Engineering
Basic Thermal Engineering
Programming in C
Oral Business Communications
Mathematics-II
Physics
Basic Electrical Technology
Engineering Mechanics
Data Structure using c
Written Business Communications
Mathematics
Materials Science & Engineering
Network Theory
Object Oriented Programming Using C++
Organizational Behavior
Analogue Electronics Circuit
Electromagnetic Fields & Waves
Electrical Machines-I
Electrical & Electronics Measurement
Digital Electronics Circuit
Engineering Economics and Costing
Physics of Semiconductor Devices
Control Systems Engineering
Environmental Engineering & Safety
Electrical Machines-II
Power Electronics
Microprocessor & Microcontrollers
Digital Signal Processing
Optimization in Engineering
Electrical Power Transmission and Distribution

Bachelor of Technology in Information Technology

Theory Courses

The Bachelor of Technology in Information Technology is a comprehensive program that covers everything from installing software to creating sophisticated computer networks, as well as the design, development, execution, support, and operation of computer-based information systems and databases. Software development, software testing, software engineering, computer networking, web design, databases, programming, and other topics are covered in this course. It also covers the operation, maintenance, design, and analysis of numerous network methods and communication systems that can be utilized in a variety of sectors, including receiving large data for analysis, cloud computing, and wireless networking, as well as network analysis and security.

Laboratory Courses

Chemistry Laboratory
Workshop Practice
"C" Programming Laboratory
Business Communicative English Lab
Basic Electronics Laboratory
Physics Laboratory
Engineering Drawing
D.S. using "C" Laboratory
Basic Electrical Laboratory
Analogue Electronics Lab
Object Oriented Programming Lab using C++
Critical Reading
Digital Electronics Circuit Lab
Design and Analysis of Algorithm Lab
Computer Organization
Relational Database Management System Lab
Java Programming Lab
Compiler Design Lab
Microprocessor & Microcontroller Lab
Operating System Lab
Data Communication and Computer Network Lab
Software Engineering Lab



Mathematics-I
Chemistry
Basic Electronics Engineering
Basic Thermal Engineering
Programming in C
Oral Business Communications
Mathematics-II
Physics
Basic Electrical Technology Engineering
Mechanics Data Structure using C
Written Business Communications
Mathematics III Network Theory
Physics of Semiconductor devices
Object Oriented Programming using C++
Analogue Electronics Circuit
Engineering Economics & Costing
Discrete Mathematics
System Programming
Theory of Computation
Design and Analysis of Algorithm
Digital Electronics Circuit
Organizational Behavior
Computer Organization
Java Programming Compiler Design
Relational Database Management System
Environmental Engineering
Microprocessor & Microcontrollers
Operating System
Data Communication and Computer Network
Optimization in Engineering
Principles of Soft Computing
Principles and Practices in Software Engineering

Electives Offered by Computer Science

- Scientific computing with Python
- Web search Mining
- Computational-Biology & Bioinformatics
- Data Mining
- Image processing
- Model checking
- Wireless sensor networks
- Software Project Management
- Mobile computing
- Software testing
- Internet and web technology

Compulsory (recent trend subjects)

- Artificial Intelligence
- Cloud Computing
- Image video processing

Research Lab details:

- Image and Video Processing Lab
- CLIA (Cross Language Information Access Lab) funded by DeitY
- IoT Lab
- Cloud Computing Lab
- Augmented Reality and Virtual Reality (AR-VR) Lab
- Information Security Lab
- Bio-informatics Lab

Electives Offered by Electronics and Telecommunication Engineering

- Fiber Optic Communication System
- VLSI design
- Antenna Theory: Analysis, Design and Characterization
- Antenna and Wave Propagation
- Mobile Communication
- Microprocessor and Interfacing
- Microcontroller and IoT
- Radar and Satellite
- Programming for Electrical and Electronics: MATLAB and LabVIEW
- Adaptive Signal Processing
- Advanced Electronics Circuits
- Digital Signal Processing
- Communication Engineering
- Signals and Systems
- Analog Electronics Circuits

Research Labs:

- Optical Communication Lab
- Microwave and Antenna Lab
- VLSI and Signal Processing Lab

Electives Offered by Electrical and Electronics Engineering

- Electric Drives
- Advanced Control System Advanced
- Power Electronics
- Power Station Engineering and Economy
- Electrical Power Quality
- Renewable Energy
- Microcontroller & Applications
- Flexible AC Transmission System
- Energy Conversion Devices
- Control Systems Engineering

Electives Offered by Basic Science & Humanities

- Numerical Methods
- Principles of Management
- Digital Marketing
- Advanced Material Chemistry
- Semiconductor Physics for Engineers
- Entrepreneurship Development

Master of Technology in Computer Science and Engineering

The Institute has been offering an M.Tech program in Computer Science and Engineering since 2007. The main objective of this program is to develop professionals who address the knowledge intensive needs of the industry and academia. The M.Tech program is designed in such a way that its curriculum is more focused and oriented towards research. The curriculum explores emerging areas in Computer Science and related fields. The Seminars and Projects require the students to explore academic literature and write academic articles and thesis worthy of publication in serious academic journals. The Institute recognizes and incentivizes quality publications of masters' program. It is expected that the students graduating from masters' program will seek a career in research and academics.

Subjects

Design and analysis of algorithm (DAA)
Mathematical foundation of computer science (MFCS)
Enterprise resource planning (ERP)
Web course (software engineering)

Electives List:

Scientific Information theory and coding
Machine learning
Image and video processing
Computer vision
Advanced data mining
Bioinformatics and computer biology
Information retrieval
NLP
Mobile Ad Hoc network
Mobile computing
Cloud computing
Information security
Mathematical foundation of information security
Digital forensic
IOT security
Human computer interaction
Graph theory
Parallel computing





Ph.D. Program

Since 2015, the Institute has been offering PhD program. The goal of this curriculum is to prepare people for academic and research careers.

Computer Science and Engineering

Information Security
Image and video processing
Data mining
Information retrieval
Mobile computing
Big data
ERP
Bioinformatics.

Basic Sciences and Humanities

Asian Shakespeare Studies
Translation Studies
Optimization Technique
Numerical Analysis
Quantum Computation
Organic Polymer
Fluid Dynamics
Synthesis and Luminescence
Characterization Of Phosphorus
Contemporary English and American Novel
Odia Literary Criticism
Comparative Literature
Postcolonial Studies



Mechanical Engineering

Triple fluid heat exchanger
Combustion and emissions analysis of HCCI engines
Nonlinear dynamics, bifurcation, and chaos
Linear & Non-Linear analysis of Functionally Graded Materials (FGM) under Hygro-Thermal environment.

Electrical Engineering

Smart Grid Technologies
Power System Optimization
Grid Integration of Renewable Energy Sources
Adaptive Power Quality & Estimation

Electronics and Telecommunication Engineering

VLSI Architecture design, FPGA, Signal and Image Processing
Fiber optic communication, nonlinear optics, free space optics
Antenna Design, Planar RF & Microwave Circuits and System Design, Microwave remote sensing & Sensors
Array Signal Processing
Wireless Communication, Image Processing
VLSI Design, Network on Chips, Multi-core SoC Architectures
Ground penetrating RADAR, Meta materials, Electromagnetic measurements

Faculty & Staff

Faculty members' roles and responsibilities are inextricably linked to the primary functions of higher education. Faculty members teach by disseminating and imparting basic or applied knowledge to students, as well as assisting them in the learning process and application of that knowledge. The faculty is viewed as the subject expert in this formulation of the teaching position, while students are regarded as learners or novices to the academic discipline or field of study. Faculty members are expected to keep up with changes in their fields to keep their skills and knowledge up to date.

Faculty members at our institution are also expected to contribute to the creation of the new discoveries that are taught, which might lead to disagreements regarding the proper priorities for research and teaching responsibilities. When it comes to faculty recruitment, the Institute sets the bar high. Most of them have earned a doctorate, and the others are on the cusp of doing so. Faculty development program at the Institute include research and publication incentives, required training, exchange program with universities throughout the world, and exposure to industrial methods, among others.

The IIIT-Bhubaneswar staff plays a critical role in ensuring the smooth operation of the institute's operations. Because we are a technical educational institution, we ensure that our personnel are well-versed in the most recent technology breakthroughs so that jobs are accomplished accurately and on schedule. They collaborate in a coordinated manner to achieve organizational goals.





Students



For its pupils, the Institute provides an exceptional environment. Here at the Institute, a high degree of contact among students, teachers, and business guests is a way of life. Students are well equipped for life following graduation from the institute thanks to a combination of classroom study and exposure to industrial practices. The Institute, as a residential institution, provides a variety of learning opportunities. Students learn in and out of the classroom, from the curriculum and from their classmates, from teachers and from the curriculum. Skills and knowledge aren't the only things that can be learned. Students are encouraged to strengthen their competences, professionalism, and societal and environmental concern.

Students are taught to be inspired by others as well as to inspire others. During their time at the Institute, the students form strong and lasting bonds. The quality of life and learning is enhanced when one is surrounded by other bright, young, aspiring minds. Students grow into brilliant, well-groomed professionals who want to make the world a better and more comfortable place to live as members of this lively community.



Tech Society

The Tech Society's mission is to promote and encourage technological advancements. Students can learn outside of the classroom with the help of the Society. Model workshops, technical seminars, training courses, and contests are all held on a regular basis by the society. It hosts Leadership Seminars, which feature industry leaders as speakers. In the last year, the Society has held workshops on ethical hacking and ARM processors, with over 200 students attending. Technotronics, a satellite club of the society has actively conducted workshops on HTML-5, Arduino, Microcontroller, Ruby on rails, underwater robotics etc. in past and is still persistent in its endeavours.



IEEE and ACM Chapters

Under the auspices of IEEE, the institute's IEEE chapter hosts seminars and workshops. Additionally, it has given students the opportunity to present and publish their research papers. The ACM student chapter, which has been named the country's second-best student chapter, is also one of the college's most active chapters. Code Battle, Py-Session, and Introduction to Machine Learning, as well as Linux Installation Fest and other activities, have all been successful for the ACM chapter. It is one of the Institute's most active societies. ACM has been arranging lectures in the style of boot camps on various topics of computer science, working on the idea of "beyond the curriculum."

The Cultural Society

The goal of a cultural society is to identify and promote intrinsic potential in students. There are a variety of clubs inside the society that are dedicated to promoting an individual's ideals and interests. Art & Design Club, Movie Club, Aakanksh (Dramatics Club), Photo-geeks (Photography Club), and DEBSOC are among them (Debating Club). VIBES, OCTAVES, singing competitions, dancing competitions, Rockathon, photography competitions, fashion shows, fresher's welcome party "Nebulae," and several festive nights are all organised by the cultural society.



Film and Theatre Society

The society is made up of aspiring actors, screenwriters, dramatists, producers, and directors who enjoy reeling in the truth. It conducts a variety of amusing activities such as dumb charades, Bollywood quizzes, and atanksharis, all of which fit in perfectly with the campus's competitive coding culture. On Rahagiri, the Akanksh theatrical group performed its famous show on terrorism and domestic abuse, which raised awareness and gained widespread acclaim.

Sports

The IIIT Sports Society is the voice and face of the IIIT sports community and is in charge of the management and execution of all sporting events on and off campus. A tradition of unwavering determination and tireless devotion! They have sought to encourage more and more sports on campus since their founding. They've gone a long way and yet have a long way to go. The annual sports festival - KRIDDA - is held in the months of January and February, and it attracts participants from all over.



News and Publications Society

The IIIT Bhubaneswar News and Publications Society chronicle all of the events that take place throughout the academic year and serves as a venue for students to improve their literary talents. Throughout the year, the NAPS organises a variety of discussions, quizzes, and presentations. It contains a Debate Society, often known as DEBSOC, which holds debates on a regular basis. This group has successfully conducted many discussions and quizzes every semester to date, with a high level of participation. For numerous years, NAPS has hosted the IIIT Literature Festival.

Mood Court, Mock CID, Courtroom Trial, Puzzle Room, Scribbled Stories, Writing Workshops, discussions, and many more events are part of the Ingenium Litfest. As a result, the News and Publications Society provides students with a venue to improve their literary and writing talents, as well as to motivate them to become better debaters, authors, and orators.

ADVAITA

The Institute's annual techno-cult festival, ADVAITA, attracts students from all around India. The four-day major event features a wide range of technical competitions, rock band events (ROCKATHON) from various institutions, literary events, cultural performances, and a variety of other crowd-pleasing activities. The technical horde comprises much-anticipated events such as Technova, Dirt Rush, and Online Coding challenges, while the cultural horde includes debating competitions, literature quizzes, and more. Other events include LA-MODE, the institute's much-anticipated fashion show, and FOOTLOOSE, an explosive dance competition. The most popular event at ADVAITA is Celebrity Night, where a well-known celebrity performs in front of a large crowd. In its previous edition, ADVAITA featured celebrities such as Lost Stories, Local Train, and Band Lagoori, and it drew a large crowd.



Photogeeks (Photography Society)

Basically, we are a group of people who work together to cover events through photography and videography. We have reached out to organisations outside of campus to shoot after movies and video coverage, including NGOs. Photo exhibitions, photo art shows, competitions, and photo features are all organised by the Photography Society. Photography competitions during World Photography Day and 'Imagen,' the official intercollege event, were organised in the last two semesters.



NDTV
COVID: Students in Bhubaneswar design 'Bubble Helmet' for patients
in.news.yahoo.com/video/covid-st...
#COVID19 #Bhubaneswar



THE NEW INDIAN EXPRESS
IIIT-Bhubaneswar students make first-of-its-kind ventilation device to ease mild breathing issues

Express News Service | Published: 16th September 2020 09:50



Student Achievements

AUUM Platforms

Auum Platforms is a Product Based company based out of Bhubaneswar with a vision to build the best product which will reach every person across the world. It is founded by 6 IIITians: Sai Sambit Nayak, Sidharth Suvankar Nayak, Ananya Apremeya, Dibyajyoti Dash, Vitthal Gupta, and Tapaswin Padhy. It is recognized by Startup Odisha & Startup India and is DPIIT-affiliated.

As a 1st step toward the vision, the team's 1st Product "Swasner PPE" is in the market which is a revolutionary new PPE that creates a private atmosphere for the user completely isolating from the external environment. The team started working on this during the critical times of COVID-19, they were making the most affordable ventilator using chamber-based ventilation. The technology was widely accepted across the globe and got lots of media and institutional recognition. Later, they decided to use the same technology to make a user-friendly product for a larger mass and help them in staying safe from Airborne diseases & pollution. The team aims to achieve a 10X growth and make more such innovative products to make the entire college and state proud.

HEALTHCARE

Students of IIIT Bhubaneswar create bubble helmet to help COVID-19 patients, frontline workers

By Anju Ann Mathew | September 23, 2020



Swasner, a helmet ventilator built by the students of IIIT Bhubaneswar, can be used as part of the PPE kits for frontline workers. The patent-pending bubble

Dr. Ramesh Pokhriyal Nishank @DrRNishank

#IIITBhubaneswar has devised a bubble helmet ventilator, Swasner, for patients suffering from Acute Respiratory Distress Syndrome (ARDS). The helmet could be used as #PPE kit for front-line workers. Good job by IIIT Bhubaneswar.
bit.ly/IIIT-B-ventila...

Ministry of Education Government of India

IIIT Bhubaneswar students have designed an air 'bubble helmet' ventilator

Ministry of Education Government of India

IIIT Bhubaneswar has built 'Swasner' - a helmet ventilator that can be used as a part of PPE kits for frontline workers

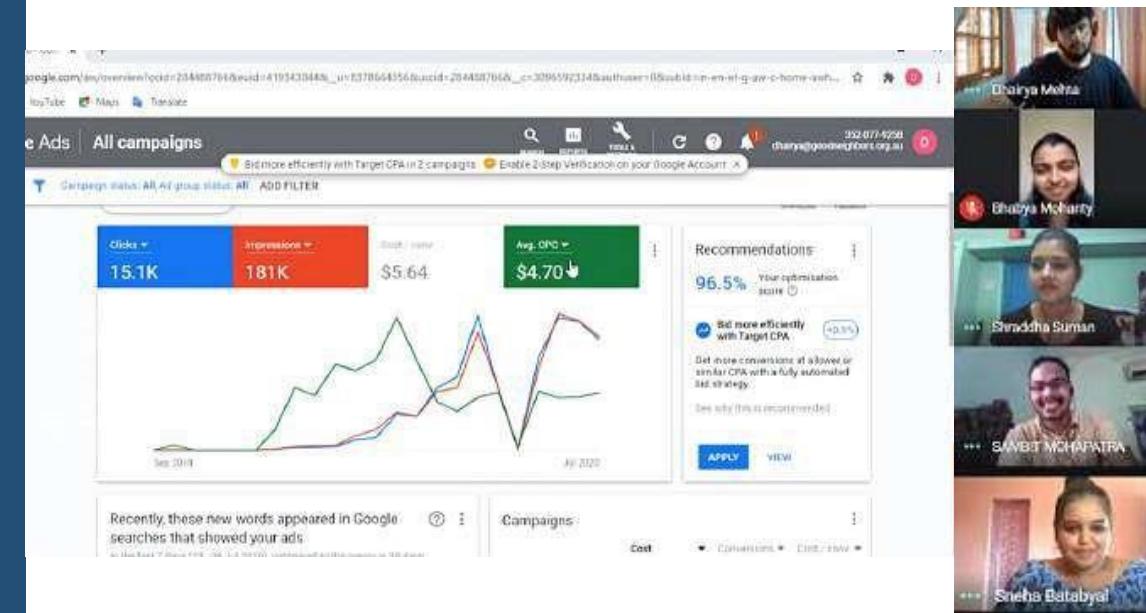
TOI

BHUBANESWAR: If everything goes as planned, the traffic police at major junctions will soon sport smart personal protective equipment (PPE) to ward off air pollution and infection. The commissionerate police has supplied five pairs of these protective gears to its traffic personnel to understand if the idea is feasible and whether these PPEs are comfortable to wear.

MIT COVID19 Challenge:

India Turning the Tide was a 48-hour virtual event aimed at tackling the most critical issues that had arisen out of the covid-19 outbreak. The team KYB comprising Ankur, Barenya and Kartik won in track D for the best utilisation of Government and private funds to re-activate the informal economy tackling the problem of poor credibility of NGOs. While Zestha Patra from team Whistle Winds won in Track J dealing with poor quality control and fraud during the pandemic for devising an efficient solution for the management of complaints.

Team Members: Ankur Khandelwal (3rd Year, CE), Barenya Kumar Panda (3rd Year, IT), Kartik Kumar Singh (3rd Year, IT) and Zestha Patra (3rd year, CE)



RAKATHON 2021

Rakuten Studio

Furnish your home by the time your kids finish their dinner

Team suvankarsidharth.261_3037

10.04.2021



Rakathon 2021 by Rakuten Inc.

Idea of furnishing home with a virtual tour of the house with just a 2d Layout/Map won 2nd prize in Rakathon 2021 by Rakuten Inc.

Team Members: Sidharth Suvankar Nayak, Ananya Aprameya

Ruchika Mishra has been placed 3rd in the 32nd DAE All India Online Essay Contest on Nuclear Science & Technology – 2020, organized by Department of Atomic Energy.



Placement Procedure for Companies

1. The Placement Office sends out invites to various companies and organizations, along with pertinent information.
2. The company/organization sends a JAF (Job Announcement Form) with the job offer details (pay package, place of posting, allowances and other bonuses). JAFs should be mailed or emailed to the Placement Cell (placement@iiit-bh.ac.in).
3. If a corporation or group wishes to conduct a Pre-Placement Talk (PPT), they can make a request along with the dates they desire.
4. The JAF, as well as any other information provided by the company/organization, is made available to students online.
5. Companies are assigned dates for campus interviews by the Placement Office depending on various details provided by companies. The dates are then confirmed by the companies with the Placement Office.
6. By signing the JAF, interested students demonstrate their desire to participate in a company's recruitment process.
7. Companies come to the Institute on the scheduled date/s and conduct exams and/or interviews as part of their hiring process.
8. The company/organization must provide the final list of students as soon as possible, ideally on the day of the interview.

Note: The placement office keeps track of the details corresponding to the students who have been chosen. According to the Institute's placement policy, students who have been placed may not be allowed to attend for additional interviews/recruitment process.

*The Job Announcement Form serves as the primary means of informing candidates about the vacancies available. It is therefore essential that the Form be filled out completely, and it would be good if it is supported by relevant corporate details that contains further information about the company.

Our Recruiters

Morphle Labs	Optum	Lumiq	TA Digital
Siemens Healthineers	Cognizant	Deloitte	Forcepoint
Ugam Solution	Accenture	IBM	Infosys
Browserstack	Kreditbee	Capgemini	Pcon Utility
Aakash Byju's	Informatica	Incture	Jibe
UKG (Kronos)	Quantiphi	Zemoso	Hexaware
Innovacer	Tiger Analytics	CGI	HashedIn
Tekion	Kreditbee	Latent View	ITC Infotech
Innovacer	Dell	Mahindra Comviva	Brillio
Maximi	Spikewell	Anicca Data	Virtusa
Kreditbee	Subex	Cognizant	VVDN
Cimpress	LTI	Zensar	Wipro
KPIT	Infosys	Virtusa	DeltaX

Bhubaneswar

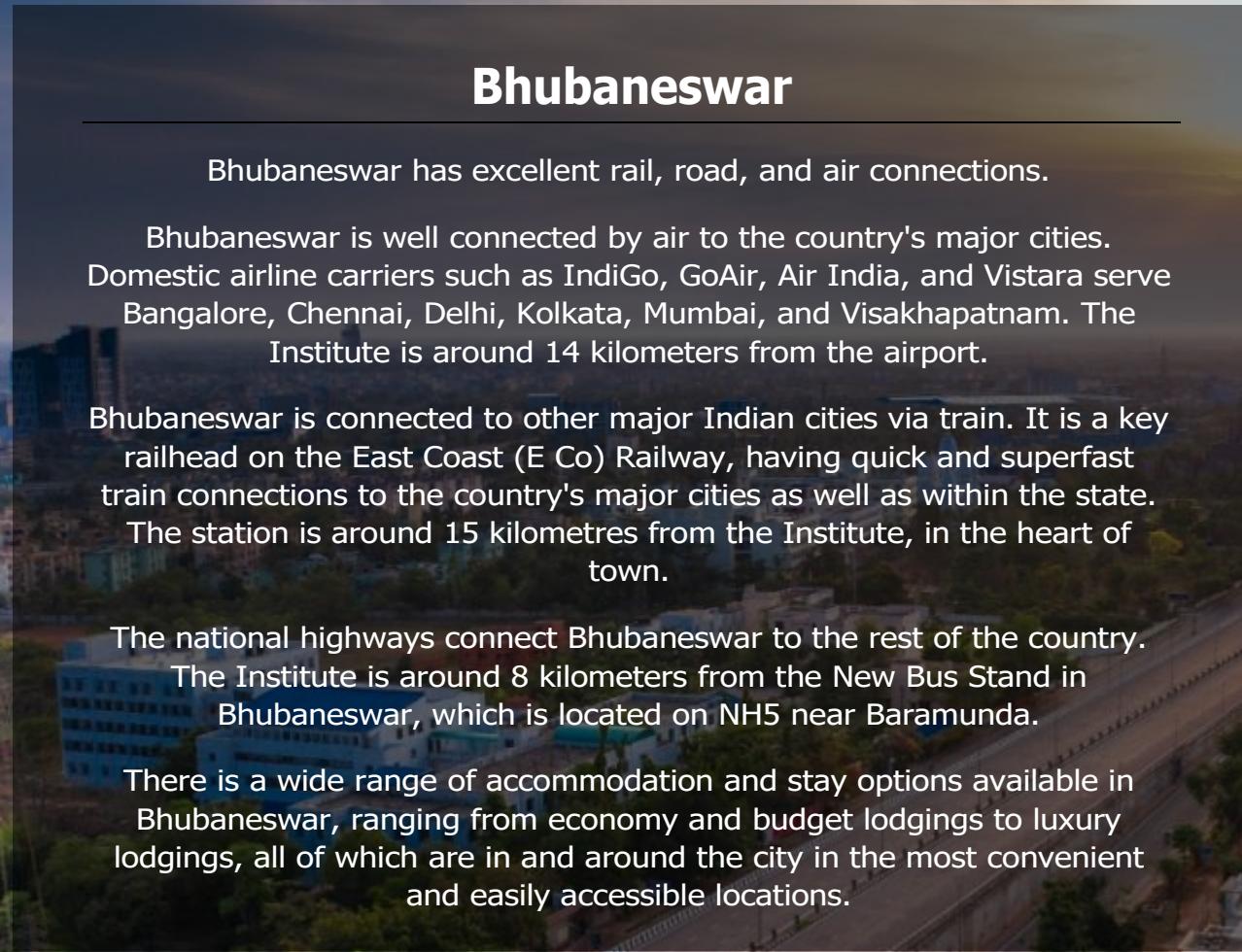
Bhubaneswar has excellent rail, road, and air connections.

Bhubaneswar is well connected by air to the country's major cities. Domestic airline carriers such as IndiGo, GoAir, Air India, and Vistara serve Bangalore, Chennai, Delhi, Kolkata, Mumbai, and Visakhapatnam. The Institute is around 14 kilometers from the airport.

Bhubaneswar is connected to other major Indian cities via train. It is a key railhead on the East Coast (E Co) Railway, having quick and superfast train connections to the country's major cities as well as within the state. The station is around 15 kilometres from the Institute, in the heart of town.

The national highways connect Bhubaneswar to the rest of the country. The Institute is around 8 kilometers from the New Bus Stand in Bhubaneswar, which is located on NH5 near Baramunda.

There is a wide range of accommodation and stay options available in Bhubaneswar, ranging from economy and budget lodgings to luxury lodgings, all of which are in and around the city in the most convenient and easily accessible locations.





The Placement Team

An experienced and energetic team led by Dr. Subrata Kumar Mohanty, committed to fulfilling the talent needs of the corporate sector. In addition to collaborating with top companies and MNCs, Rajashree Mohanty and Navanita Nayak actively facilitate student engagement in various campus events, guest lectures, and live projects, as well as participation in intercollegiate and corporate competitions to advance their educational journey in a competitive environment.

Our Hospitality

The Institute makes every effort to provide the corporate leaders who come for placement drives with the pleasant accommodations they require. The companies have the option of staying in a hotel in the city or in the Institute's guest rooms. The Institute will arrange for the stay and travel of company officials in accordance with the requirements.

If you have any more questions, please do not hesitate to contact us. We, at Placement Cell, would be delighted to serve you.



International Institute of information Technology Bhubaneswar

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Contact:

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